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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/789,894	02/27/2004	Yoshitaka Suzuki	14225.10US01	9320
7590 01/09/2007 Hamre, Schumann, Mueller & Larson, P.C. P.O. Box 2902-0902 Minneapolis, MN 55402			EXAMINER HAUGLAND, SCOTT J	
			ART UNIT 3654	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		01/09/2007	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/789,894	SUZUKI ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Scott Haugland	3654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 23 October 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 4-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 4-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/21/06 has been entered.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 4 and 5 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The originally filed application does not disclose that the electric motor is driven to take up webbing when a collision is predicted and an acceleration equal to or larger

than a predetermined value is applied to the vehicle as recited in claim 4, lines 5-7 and claim 5, lines 5-7. The originally filed application does not disclose the means for sensing acceleration equal to or larger than the predetermined value to control the electric motor recited in claim 4, lines 11-12.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fohl (U.S. Pat. No. 4,109,881) in view of Taguchi et al (U.S. Pat. No. 4,478,433).

Fohl discloses a seat belt device in which a motor (return spring; col. 2, lines 59-61) of a retractor is driven for rotation in a normal direction to take up a webbing of a seat belt. When an acceleration equal to or larger than a predetermined value is applied to the vehicle, the webbing is locked so that it cannot be drawn out of the retractor (col. 9, lines 45-68). When a collision of the vehicle has been avoided, and it is detected that acceleration of the vehicle has been reduced to be smaller than the predetermined value, the motor of the retractor is driven for rotation in the normal direction to cancel the locking, thereby loosening the webbing (col. 10, lines 1-19). The retractor includes an inertia gear 8 and a locking lever 10.

Fohl does not disclose an electric motor that drives the retractor.

Taguchi et al teaches using an electric motor to drive webbing in a seat belt retractor, the motor being operated to tighten the seat belt in response to a collision predicting signal (Fig. 4; col. 6, lines 44-64). Taguchi et al teaches locking a seat belt reel in response to vehicle acceleration using a lever 46 and weight 43.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide Fohl with an electric motor for driving the retractor that is operated based on a collision predicting signal as taught by Taguchi et al to allow greater control over the retractor and webbing and to increase effectiveness of the seat belt by taking up slack.

With regard to claim 5, the lever (10, 55, 56, 57) inherently acts under the force of gravity.

With regard to claims 7 and 9, it would have been obvious to obtain the collision predicting signal from an adaptive cruise control system since any signal that indicates a higher probability of a collision would obviously have been usable.

With regard to claim 8, note weight 173 (Fig. 26) in Fohl. Also, note weight 43 taught by Taguchi et al.

### ***Response to Arguments***

Applicants' arguments filed 9/21/06 have been fully considered but they are not persuasive.

Applicants argue that the operation of the electric motor in Taguchi does not require sensing an acceleration of a vehicle. However, both Fohl and Taguchi et al disclose sensing vehicle acceleration for the purpose of controlling seat belt retractors. For example, see Figs. 26-30 of Fohl and Fig. 4 of Taguchi et al. A braking signal which indicates a level of acceleration controls the motor in the Fig. 4 embodiment of Taguchi et al.

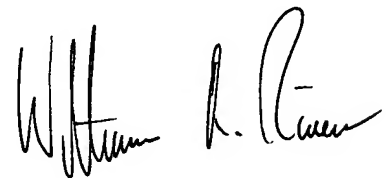
Applicants argue that neither Fohl or Taguchi et al discloses a movable weight member that locks a set belt retractor when the weight is moved due to acceleration. However, such a weight is shown in Fig. 26 of Fohl and in Taguchi et al (element 43).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Haugland whose telephone number is (571) 272-6945. The examiner can normally be reached on Mon. - Fri., 10:00 am - 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kathy Matecki can be reached on (571) 272-6951. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
S.J.H.  
1/3/07



**WILLIAM A. RIVERA**  
**PRIMARY EXAMINER**